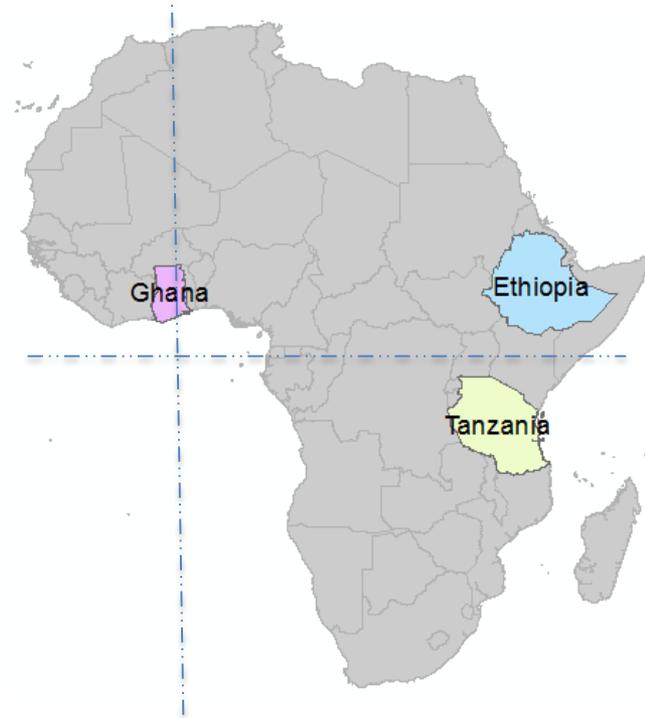




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Small Scale Irrigation in Sub-Saharan Africa

Thomas Gerik



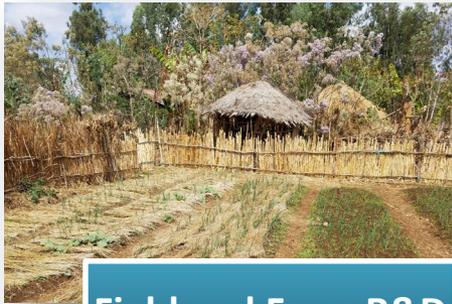


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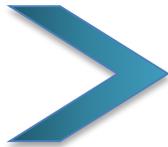
Surveys
Households
Social Gender



Field and Farm R&D



Modeling Systems
Integration



ETHIOPIA
Scaled-up Country





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Intervention	Emerging results / key findings
<ul style="list-style-type: none"> • Manual/motorized water-lifting devices: Rope and pulley, Rope & Washer, motor pump, solar pump • Irrigation management: irrigation scheduling tools, e.g. TDR, Wetting Front Detector • Crops: High-value vegetables, fruit trees, fodder crops • Groundwater recharge improvement: Berken plow, biological treatments • Credit access: facilitated through local financial service providers 	<ul style="list-style-type: none"> • Groundwater availability and sustainability for dry season SSI not be feasible in some areas; on farm water management is important • Groundwater recharge (in Ethiopia) can be improved using deep tillage • Irrigation scheduling tools and fertilizer guidance needed to optimize water use and productivity • Most Irrigation technologies are profitable with high value vegetables (crops) • Labor constraints and costs are key factor in profitability • Access to appropriate financing is low; access to credit may increase adoption • SSI technology supply chain is underdeveloped

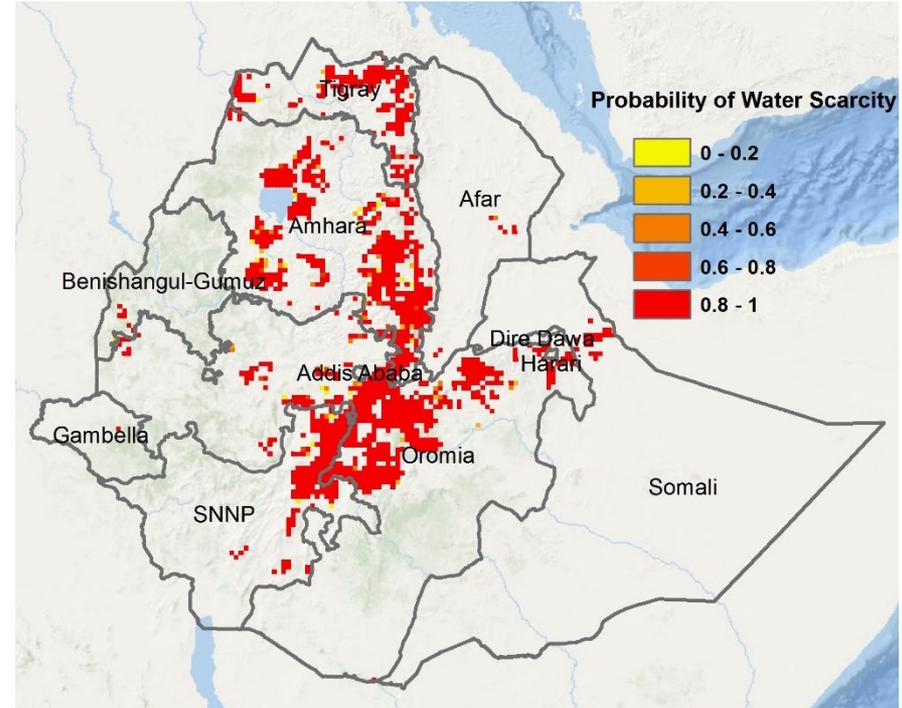
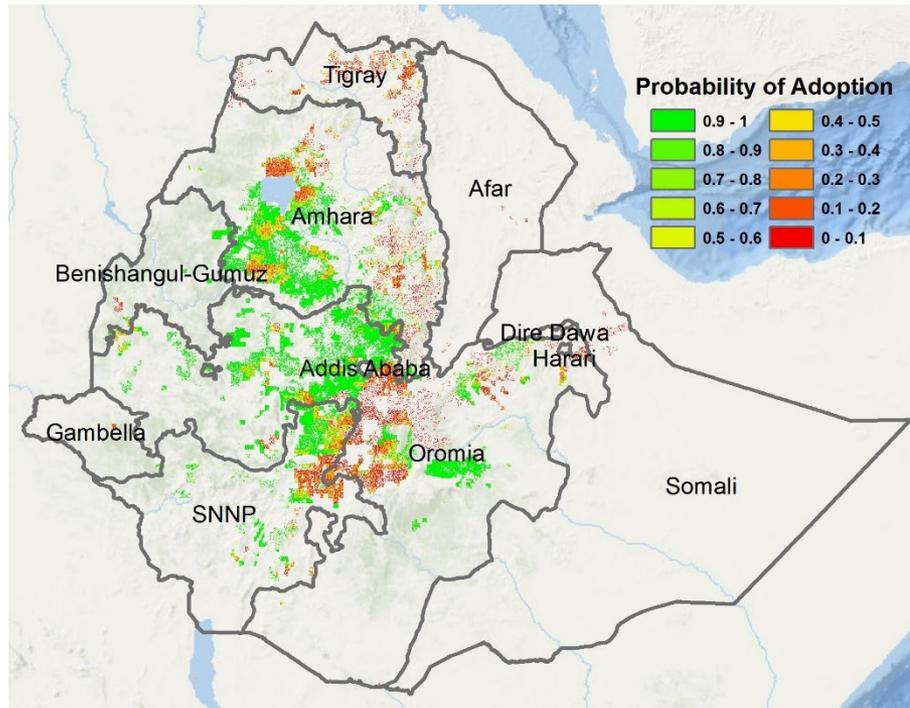


THE TEXAS A&M UNIVERSITY SYSTEM





PROBABILITY OF IRRIGATION ADOPTION AND WATER SCARCITY



- High adoption probability for SSI at Lake Tana and Ethiopian Highlands, and Great Rift Valley areas
- SSI development may pose widespread water scarcity



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